

WE CLAIM:

1. A white, biaxially oriented film with a thickness in the range from 10 to 500 μm , whose main constituent is at least one crystallizable thermoplastic and which comprises at least one rutile-type titanium dioxide as white pigment and at least one optical brightener, with or without other additives, and also has at least one other functionality.

2. The film as claimed in claim 1, wherein the crystallizable thermoplastic is a polyethylene terephthalate, polybutylene terephthalate, polyethylene naphthalate, bibenzoyl-modified polyethylene terephthalate, or a mixture of these.

3. The film as claimed in claim 1, wherein the concentration of the white pigment present is in the range from 2.0 to 25.0% by weight based on the weight of the thermoplastic.

4. The film as claimed in claim 1, wherein the optical brightener present comprises at least one benzoxazole derivative, triazine derivative, phenylcoumarin derivative, or bisstearyl biphenyl derivative, in amounts of from 10 to 50 000 ppm based on the weight of the crystallizable thermoplastic.

5. The film as claimed in claim 1, which has gained at least one other functionality by being provided with a flame retardant and/or with UV stabilizers (UV absorbers), and/or has been coated so as to be sealable, and/or has been coated on one or both surfaces, and/or has been corona-treated on one or both sides, and has been provided with a soluble dye alongside the optical brightener.

6. The film as claimed in claim 5, wherein the concentration of the UV absorber is in the range from 0.01 to 5.0% by weight, and the concentration of the soluble dye is in the range from 10 to 10 000 ppm.

7. The film as claimed in claim 5, wherein the UV absorbers present are 2-hydroxybenzophenones, 2-hydroxybenzotriazoles, organonickel compounds,

salicylic esters, cinnamic ester derivatives, resorcinol monobenzoates, oxanilides, hydroxybenzoic esters, sterically hindered amines, or triazines, preferably 2-hydroxybenzotriazoles or triazines, or in particular 2-(4,6-diphenyl-1,3,5-triazin-2-yl)-5-hexyloxyphenol or 2,2'-methylenebis(6-(2H-benzotriazol-2-yl)-4-(1,1,2,2-tetra-methylpropyl)phenol).

8. The film as claimed in in claim 5, wherein the flame retardant present is an organic phosphorus compound.

9. The film as claimed in in claim 8, wherein the organic phosphorus compound is a carboxyphosphinic acid or anhydride thereof.

10. The film as claimed in in claim 8, wherein the organic phosphorus compound is bis(5-ethyl-2-methyl-2-oxo-2 λ 6-[1,3,2]dioxaphosphinan-5-ylmethyl methane-phosphonate.

11. The film as claimed in in claim 1, wherein a hydrolysis stabilizer is present, in the form of phenolic stabilizers, alkali metal/alkaline earth metal stearates, and/or alkali metal/alkaline earth metal carbonates, in amounts of from 0.01 to 1.0% by weight.

12. The film as claimed in in claim 11, wherein the phenolic stabilizer in is present in amounts of from 0.05 to 0.6% by weight and having a molar mass above 500 g/mol.

13. The film as claimed in claim 1, wherein regrind is present.

14. A process for producing a white, biaxially oriented film with a thickness in the range from 10 to 500 μ m whose main constituent is at least one crystallizable thermoplastic, which comprises extruding a crystallizable thermoplastic with at least one rutile-type titanium dioxide as white pigment and with at least one optical brightener, and with other substances providing functionality, to give a flat melt film, quenching and solidifying the same with the aid of a chill roll to give a substantially

amorphous prefilm, then reheating this film and stretching the same at least once longitudinally and transversely, then heat-setting the film at temperatures of from 200 to 280°C, and finally cooling and winding up the film.

5 15. The process as claimed in claim 14, wherein the film is given at least one other functionality by being provided with a flame retardant and/or with UV stabilizers and/or with at least one sealable layer, and/or by being coated on one or both surfaces, and/or by being corona-treated on one or both sides, and has a soluble dye alongside the optical brightener.

10 16. The process as claimed in claim 14, wherein the film is produced by metering the rutile-type titanium dioxide, the optical brightener, and the other substances providing functionality into the extruder.

15 17. The process as claimed in claim 16, wherein the rutile-type titanium dioxide, the optical brightener, and the other substances are added by way of masterbatch technology.

20 18. The process as claimed in claim 14, wherein use is made of regrind.